1: Childs M-5 (1924-1940) 1949 FP 13 Mbundu FP 13

streams and washed-out bridges. Electrical discharges in connexion with storms are very common and often cause property and personal damage. In connexion with mean annual rainfall figures, the cycle of rainy and dry seasons is of importance. An annual rainfall of 50 or 60 inches may not seem unduly heavy save when it is realized that practically all of it falls during seven or even six months. It is this heavy seasonal rainfall which has made much of the Highland into what is known in South Africa as 'sour veld'—a type of pasturage relatively ill-suited for cattle raising.

The Benguela Highland is well within the tropics (between 11° and 14° 30′ South), but the altitude and the effect of the antarctic current combine to produce a decidedly moderate climate. The variations of temperature, however, are quite unlike those found in most regions having a 'temperate' climate. The régime of the rains, tropical position, altitude, and other factors combine to produce a peculiar set of temperature variations. The annual variation of temperature is relatively slight, a day's maximum is seldom above 90° F., it may be as low as 60°, but the more usual maximum is around 80°. The minimum of 32° or even 30° is sometimes reached in the winter (about 20 May–20 July),[1] but it seldom goes quite so low. A day's minimum has been registered as high as 63°, more usually the minimum goes to about 40° or 45° in winter and between 50° and 55° during the rest of the year. Daily variations are important. Greatest variations occur in winter with differences of as much as 42° often registered. During the rest of the year there is a considerable range of daily variation—sometimes as much as 40° and sometimes as little as 7° with usual variation of from 20° to 30°.[2] On the days when it rains or remains cloudy all day the slightest variations are registered. Such days are cold and disagreeable and a grate fire is almost a necessity.[3]

Environmental Factors

Differences of characteristic vegetation as between the Highland and the lower zones are striking. The most characteristic feature

[1] Ice forms nearly every winter—at least in small pools along the streams, and sometimes more generally. There are Umbundu words for hoar-frost (*ocikokoto*) and for hail (*ocive*), but not for ice nor, of course, for snow.

[2] Figures compiled from records of the weather station of Currie Institute, Ndondi—elevation 1,800 metres (5,900 feet).

[3] Grate fires are agreeable mornings and evenings during ten to eleven months of the year. In the winter they are a real necessity.

1: Childs M-5 (1924-1940) 1949 FP13 Mbundu FP13

137 of the lower zones between the plateau and the coast is the baobab (*Adansonia digitata*). Where these lower zones are well watered, especially along the streams, dense tropical forests are the rule.

The Highland proper until quite recent times was well covered with a good variety of trees. This gave a pleasing aspect not lost upon travellers. Commander Cameron, who crossed from Zanzibar to Benguela in 1875, was greatly impressed by the rustic beauty of the country-side:

> As we went forward the scenery increased in beauty, and at last I was constrained to halt and surrender myself to the enjoyment of the view which lay before me.
>
> I will content myself with asserting that nothing could be more lovely than this entrancing scene, this glimpse of Paradise. To describe it would be impossible. Neither poet, . . . nor painter . . . could by pen or pencil do full justice to the country of Bailundu.
>
> In the foreground were glades in the woodland, varied with knolls crowned by groves of large, English-looking trees, sheltering villages with yellow thatched roofs; . . . plantations with the fresh green of young crops and the bright red of newly hoed ground in vivid contrast, and running streams flashing in the sunlight; while in the far distance were mountains of endless and pleasing variety of form, gradually fading away until they blended with the blue of the sky. . . .
>
> That evening we camped in a wood, a clear space having literally to be cut out of the masses of sweet-scented creepers which festooned the trees.[1]

Some of this natural beauty still remains in Bailundu and other parts of the country, but much of it has gone, as grasslands have taken the place of forest and woodland. Native agriculture and the annual fires have caused much deforestation and much has also come about from the demands of European settlement and the needs of the railway, which up to the present time uses only wood for fuel. The question as to whether the rainfall has yet been much affected is often discussed.

164 The Benguela Highland is within the tropics and therefore subject to many tropical diseases. Malaria is prevalent owing to the presence of the *Anopheles* mosquito, one of the two essential hosts in the life-cycle of the malaria germ, man being the other. Infant mortality owing to malaria seems to be high among the Ovimbundu. It seems probable, however, that many of the

[1] V. L. Cameron, *Across Africa* (New York: Harpers, 1877), p. 410 f.

The two largest rivers flowing from the Highland are the Kwanza and the Kunene, both of which flow into the Atlantic Ocean. Between them are the Keve, the Balombo and the Katumbela. The Kubango rises near the source of the Kunene and flows southwards towards the Kalahari Desert. 133

SOILS AND VEGETATION

The foundation of the plateau is a vast slab of primeval crystalline rock, which frequently outcrops in the form of isolated rocks or of massive peaks. Some of these outcrops remain bare, while others are hidden by laterite and soil formed by rock decomposition. Sediments overlying the rocks include unfossiliferous sandstones and conglomerates, considered to be of Palaeozoic age. Much of the soil is poor, in many areas impoverished by use and by erosion; there are however a few alluvial deposits, and on the whole the soil is of better quality than in the adjoining regions to the east, north and south. 134 133

Differences in vegetation between the Highland and the lower zone towards the coast are striking. Characteristic feature of the coastal area is the baobab *(Adansonia digitata)* and in the better-watered areas tropical forests occur. The Highland proper was until recently well-covered with a variety of trees; today, however, except in isolated areas in Bailundu and other regions, grasslands have taken the place of forest and woodland. Native methods of agriculture and annual fires have caused much deforestation, and this has been accentuated by the demands of European settlement and of the Railway, which up to the present time uses principally wood for fuel. 137

CLIMATE

The Highland is well within the Tropical Zone, but altitude and the effect of the south-western Antarctic current combine to produce a moderate climate. The annual variation of temperature is relatively slight; a day's maximum is seldom above 90°F, and may be as low as 60°, but the usual maximum is around 80°. The minimum of 32° or even 30° is sometimes reached in the winter (about May 20th - July 20th), but more usually the minimum is 40° to 50° in the winter, and 50° to 55° for the rest of the year. There is considerably daily variation, especially in the winter, when differences of 42° are often registered. 132

Mean annual rainfall varies from 40 to 60 inches, according to region. In the Highland the rains begin with a few showers during September, increase during October and November, have a break of two to four weeks in December, January or February, and continue until the end of April. The heaviest falls are usually in November and December, occasionally in March.

TRADITIONS OF ORIGIN AND HISTORY(1)

The Ovimbundu people represent a fusion of diverse stocks, chiefly of the Southern Bantu and of the Congo or Central Bantu peoples. The ruling 174 167

(1) This section is a summary of the detailed account given by Childs 1949, pp.164-231.

3: Hambly E-5 (1929-1930) 1934 FP13 Mbundu FP13

growth is under examination. This central plateau, the Benguela Highlands, rises in places to a height of 6,000 feet, an altitude which reduces the heat of the tropics and so modifies the flora, discouraging some types of vegetation and encouraging others. Hostility of the highlands to palm trees and the banana is appropriately discussed when dealing with cultural losses; while the fostering effect of reduced temperature and the presence of wide expanses of open country on the growth of maize and the keeping of cattle is a cultural gain.

The prevailing rains of Angola are from the northeast to the southwest; consequently the high plateau intercepts rain clouds which give an annual fall of sixty inches. This adequate rainfall is another factor which has affected economic life, density of population, communal welfare, and powers of expansion.

The villages of the Ovimbundu are built on hillsides having a commanding view of the surrounding country. There is in the nature of the land a natural protection from enemies. In addition to this the Benguela Highlands are an admirable base from which expeditions both predatory and commercial might, and actually did set out eastward to the interior of Africa, and southwest to the cattle-keeping country.

It is important to note that this central plateau is the watershed for four large river systems; the Kwanza to the northwest; the Cunene to the southwest; the tributaries of the Kasai to the northeast; and the Zambezi and its affluents to the southeast. Fishing, with attendant beliefs of a ritualistic kind, is of local importance; so also is the making of canoes. Moreover, the river valleys have marked out a natural means of communication in several directions.

In connection with the river system the biological factor of the tsetse fly is important, because the presence of the fly locally discourages human habitation and prevents the keeping of cattle. The exact distribution of the fly is imperfectly known, but *Glossinia palpalis*, the cause of sleeping sickness in human beings, also *Glossinia morsitans*, which carries disease to cattle, are both present along the Kwanza and parts of the other rivers (J. C. B. Statham, Through Angola, p. 294).

The western coastal strip is a region of great aridity which has in some years no rainfall whatever, because the northeasterly rains have expended themselves on the high plateau. This region displays vegetation of the semi-desert type; namely, baobab trees, prickly acacias, euphorbias, and aloes. Population in this area is sparse, always nomadic, and in some places non-existent. The coastal strip